

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Gupta et al.

Attorney Docket No. 24866A

Serial No.:

10/636,081

Group Art Unit: 1638

Filing Date:

August 6, 2003

Examiner: Unassigned

Title:

Methods for producing conifer somatic embryos

INFORMATION DISCLOSURE STATEMENT

TO THE COMMISSIONER FOR PATENTS:

Applicants are aware of the information listed in the attached form that may be material to the prosecution of the above-identified patent application.

- Copies of the listed foreign patents and non-patent publications are enclosed for the Examiner's use.
- Pursuant to 37 C.F.R. § 1.97(b), this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits.

Respectfully submitted.

WEYEHAEUSER COMPANY

Teresa J. Wiant

Registration No. 36,967 Direct Dial No. 206,695,3991

I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the below date.



INFORMATION CITED BY APPLICANTS THAT MAY BE MATERIAL TO THE PROSECUTION OF THE SUBJECT APPLICATION

Applicants: Gupta et al.

Attorney Docket No. WEYE-1-19405/24866A

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Methods for Producing Conifer Somatic Embryos

U.S. PATENT DOCUMENTS

*Examiner Cite		Kind	Date	
Initials No.	Document No.	Code	(mm/dd/yyyy)	Name
U1	5,294,549	A 1	03/15/1994	Pullman et al.
U2	5,236,841	A 1	08/17/1993	Gupta et al.
U3	5,482,857	Al	01/09/1996	Gupta et al.
U4	5,563,061	Al	10/08/1996	Gupta
U5	4,217,730	A1	08/19/1980	Abo El-Nil
U6	4,801,545	A1	01/31/1989	Stuart et al.
U7	4,957,866	Al	09/18/1990	Gupta et al.
U8	5,034,326	A 1	07/23/1991	Pullman et al.
U9	5,036,007	A1	07/30/1991	Gupta et al.
U10	5,041,382	A1	08/20/1991	Gupta et al.
U11	5,183,757	A1	02/02/1993	Roberts
U12	5,187,092	A 1	02/16/1993	Uddin
U13	5,238,835	A1	08/24/1993	McKersie et al.
U14	5,413,930	A 1	05/09/1995	Becwar et al.
U15	5,464,769	A1	11/07/1995	Attree et al.
U16	5,491,090	A1	02/13/1996	Handley, III et al.
U17	5,501,972	A1	03/26/1996	Westcott
U18	5,506,136	A1	04/09/1996	Becwar et al.
U19	5,523,230	A1	06/04/1996	Smith
U20	5,534,433	A1	07/09/1996	Coke
U21	5,534,434	A1	07/09/1996	Coke
U22	5,564,224	A 1	10/15/1996	Carlson et al.
U23	5,565,355	A1	10/15/1996	Smith
U24	5,587,312	A1	12/24/1996	van Holst et al.

WEYEL19405/24866A/IDS -1-

/A.P./	U25	5,610,051	A1	03/11/1997	Becwar et al.
/A.P./	U26	5,677,185	A1	10/14/1997	Handley, III
/A.P./	U27	5,731,191	A1	03/24/1998	Rutter et al.
/A.P./	U28	5,731,203	A1	03/24/1998	Handley, III
/A.P./	U29	5,731,204	A1	03/24/1998	Rutter et al.
/A.P./	U30	5,821,126	A1	10/13/1998	Durzan et al.
/A.P./	U31	5,840,581	A1	11/24/1998	Carraway et al.
/A.P./	U32	5,850,032	A1	12/15/1998	Wann
/A.P./_	U33	5,856,191	A1	01/05/1999	Handley, III
/A.P./	U34	5,985,667	A1	11/16/1999	Attree et al.
/A.P./	U35	6,022,744	A1	02/08/2000	Tetteroo et al.
/A.P./	U36	6,117,678	A1	09/12/2000	Carpenter et al.
/A.P./	U37	6,134,830	A1	10/24/2000	Welty
/A.P./	U38	6,150,167	A1	11/21/2000	Carpenter et al.
/A.P./	U39	6,180,405	B1	01/30/2001	Aitken-Christie et al.
/A.P./	U40	6,200,809	B1	03/13/2001	Klimaszewska et al.
/A.P./	U41	6,340,594	B1	01/22/2002	Attree et al.
/A.P./	U42	6,372,496	B1	04/16/2002	Attree et al.
/A.P./	U43	6,417,001	B2	07/09/2002	Aitken-Christie et al.
/A.P./	U44	6,444,467	B1	09/03/2002	Fan et al.
/A.P./	U45	6,492,174	B1	12/10/2002	Pullman et al.
/A.P./	U46	20020012994	A1	01/31/2002	Aitken-Christie et al.
/A.P./	U47	20020092037	A1	07/11/2002	Connett-Porceddu et al.
/A.P./	U48	20020100083	A1	07/25/2002	Connett-Porceddu et al.

FOREIGN PATENT DOCUMENTS

*Examiner	Cite No.	Document No.	Kind Code	Publication Date	Country	English Abstract Translation
		Document 140.	Code		Country	Provided Provided
_/A.P./	F1	EP 0 300 730	B1	01/25/1989	EPO	
_/A.P./	F2	EP 0 618 766	В1	10/12/1994	EPO	
_/A.P./	F3	EP 0 934 691	A2	08/11/1999	EPO	
_/A.P./	F4	WO 95/33822	A1	12/14/1995	WIPO	
/A.P./	F5	WO 98/48279	A1	10/29/1998	WIPO	
_/A.P./	F6	WO 01/20972	A1	09/20/2000	WIPO	

OTHER INFORMATION (Including Author, Title, Date, Pertinent Pages, Etc.)

*Examiner Initial	Cite No.	<u> </u>
/A.P./	O 1	Mathur, G. et al., "Studies on Somatic Embryogenesis From Immature Zygotic Embryos of CHIR Pine (<i>Pinus roxburghii</i> Sarg.)," <i>Current Science</i> 79(7):999-1004, 2000.
/A.P./	O2	von Aderkas, P., et al., "Charcoal Affects Early Development and Hormonal Concentrations of Somatic Embryos of Hybrid Larch," <i>Tree Physiology</i> 22:431-434, 2002.
_/A.P./	О3	Keinonen-Mettälä, K., et al., "Somatic Embryogenesis of <i>Pinus sylvestris</i> ," <i>Scand. J. For. Res. 11</i> :242-250, 1996.
/A.P./	04	Attree, S.M. et al., "Somatic Embryo Maturation, Germination, and Soil Establishment of Plants of Black and White Spruce (<i>Picea mariana</i> and <i>Picea glauca</i>)," <i>Can. J. Bot.</i> 68:2583-2589, 1990.
/A.P./	O5	Attree, S.M., et al., "Initiation of Embryogenic Callus and Suspension Cultures, and Improved Embryo Regeneration of Protoplasts, of White Spruce (Picea glauca)," Can. J. Bot. 67:1790-1795, 1989,
/A.P./	O6	Attree, S.M., et al., "Plantlet Regeneration From Embryogenic Protoplasts of White Spruce (<i>Picea glauca</i>)," <i>Bio/Technology</i> 7:1060-1062, 1989.
/A.P./	07	Boulay, M.P., et al., "Development of Somatic Embryos From Cell Suspension Cultures of Norway Spruce (<i>Picea abies</i> Karst.)," <i>Plant Cell Reports</i> 7:134-137, 1988.
/A.P./	O08	Cornu, D. and C. Geoffrion, "Aspects of Somatic Embryogenesis in Larch Trees," <i>Bull. Soc. Bot. Fr.</i> , 137 Actual. Bot. (3/4):25-34, 1990 [translation].
/A.P./	O09	Gupta, P.K., et al., "Scale-Up Somatic Embryogenesis of Conifers For Reforestation," Proceedings of the 3 rd Canadian Workshop on Plant Tissue Culture and Genetic Engineering, University of Guelph, Symposium 1: Somatic Embryogenesis and Synthetic Seeds, Abstract, June 1992.
/A.P./	O10	Hakman, I. and L.C. Fowke, "An Embryogenic Cell Suspension Culture of <i>Picea glauca</i> (White Spruce)," <i>Plant Cell Reports</i> 6:20-22, 1987.
	011	Krogstrup, P. "Somatic Embryogenesis in Sitka Spruce (Picea sitchensis (Bong.) Carr.)," Plant Cell Reports 7:594-597, 1988.
/A.P./	O12	Lelu, M.A. et al., "Effect of Maturation Duration on Desiccation Tolerance in Hybrid Larch (<i>Larix X leptoeuropaea dengler</i>) Somatic Embryos," <i>In Vitro Cell. Dev. Biol.</i> 3115-20, 1995.
/A.P./	O13	Lu, CY. and T.A. Thorpe, "Somatic Embryogenesis and Plantlet Regeneration in Cultured Immature Embryos of <i>Picea glauca</i> ," <i>J. Plant Physiol.</i> 128:297-302, 1987.

A.P.				
Maturation and Storage Protein Accumulation in Somatic Embryos of Interior Spruce," Physiologia Plantarum 83:247-254, 1991. Maturation and Storage Protein Accumulation in Somatic Embryos of Interior Spruce," Physiologia Plantarum 83:247-254, 1991. Map.	-	/A.P./	O14	From Immature Embryos of Abies nordmanniana Lk.," Plant Cell Reports
Humidity Treatments and Their Effects on Germination of Sitka Spruce Somatic Embryos," J. Plant Physiol. 138:1-6, 1991. A.P.J O17 Roberts, D.R., et al., "Synchronous and High Frequency Germination of Interior Spruce Somatic Embryos Following Partial Drying at High Relative Humidity," Can. J. Bot. 68:1086-1090, 1989. A.P.J O18 Thompson, R.G. and P. von Aderkas, "Somatic Embryogenesis and Plant Regeneration From Mature Embryos of Western Larch," Plant Cell Reports 11:379-386, 1992. A.P.J O19 Timmis, R., "Bioprocessing for Tree Production in the Forest Industry: Conifer Somatic Embryogenesis," Biotechnol. Prog. 14(1):156-166, 1998. A.P.J O20 von Arnold, S. and I. Hakman, "Regulation of Somatic Embryo Development in Picea abies by Abscisic Acid (ABA)," J. Plant Physiol. 132:164-169, 1988. A.P.J O21 von Arnold, S. and T. Eriksson, "A Revised Medium for Growth of Pea Mesophyll Protoplasts," Physiol. Plant 39:257-260, 1977. A.P.J O22 Webb, D.T., et al., "Factors Influencing the Induction of Embryogenic and Caulogenic Callus From Embros of Picea glauca and P. engelmanti," Can. J.	-	/A.P./	O15	Maturation and Storage Protein Accumulation in Somatic Embryos of Interior
Interior Spruce Somatic Embryos Following Partial Drying at High Relative Humidity," Can. J. Bot. 68:1086-1090, 1989. O18 Thompson, R.G. and P. von Aderkas, "Somatic Embryogenesis and Plant Regeneration From Mature Embryos of Western Larch," Plant Cell Reports 11:379-386, 1992. A.P. O19 Timmis, R., "Bioprocessing for Tree Production in the Forest Industry: Conifer Somatic Embryogenesis," Biotechnol. Prog. 14(1):156-166, 1998. A.P. O20 von Arnold, S. and I. Hakman, "Regulation of Somatic Embryo Development in Picea abies by Abscisic Acid (ABA)," J. Plant Physiol. 132:164-169, 1988. A.P. O21 von Arnold, S. and T. Eriksson, "A Revised Medium for Growth of Pea Mesophyll Protoplasts," Physiol. Plant 39:257-260, 1977. A.P. O22 Webb, D.T., et al., "Factors Influencing the Induction of Embryogenic and Caulogenic Callus From Embros of Picea glauca and P. engelmanii," Can. J.	-	/A.P./_	O16	Humidity Treatments and Their Effects on Germination of Sitka Spruce
Regeneration From Mature Embryos of Western Larch," Plant Cell Reports 11:379-386, 1992. A.P. O19 Timmis, R., "Bioprocessing for Tree Production in the Forest Industry: Conifer Somatic Embryogenesis," Biotechnol. Prog. 14(1):156-166, 1998. A.P. O20 von Arnold, S. and I. Hakman, "Regulation of Somatic Embryo Development i Picea abies by Abscisic Acid (ABA)," J. Plant Physiol. 132:164-169, 1988. A.P. O21 von Arnold, S. and T. Eriksson, "A Revised Medium for Growth of Pea Mesophyll Protoplasts," Physiol. Plant 39:257-260, 1977. A.P. O22 Webb, D.T., et al., "Factors Influencing the Induction of Embryogenic and Caulogenic Callus From Embros of Picea glauca and P. engelmanti," Can. J.	-	/A.P./	017	Interior Spruce Somatic Embryos Following Partial Drying at High Relative
Somatic Embryogenesis," Biotechnol. Prog. 14(1):156-166, 1998. A.P.	-	/A.P./	O18	Regeneration From Mature Embryos of Western Larch," Plant Cell Reports
Picea abies by Abscisic Acid (ABA)," J. Plant Physiol. 132:164-169, 1988. AP. O21 von Arnold, S. and T. Eriksson, "A Revised Medium for Growth of Pea Mesophyll Protoplasts," Physiol. Plant 39:257-260, 1977. AP. O22 Webb, D.T., et al., "Factors Influencing the Induction of Embryogenic and Caulogenic Callus From Embros of Picea glauca and P. engelmanii," Can. J.	-	/A.P./	O19	
Mesophyll Protoplasts," <i>Physiol. Plant 39</i> :257-260, 1977. O22 Webb, D.T., et al., "Factors Influencing the Induction of Embryogenic and Caulogenic Callus From Embros of <i>Picea glauca</i> and <i>P. engelmanii</i> ," <i>Can. J.</i>	-	/A.P./	O20	
O22 Webb, D.T., et al., "Factors Influencing the Induction of Embryogenic and Caulogenic Callus From Embros of <i>Picea glauca</i> and <i>P. engelmanii</i> ," <i>Can. J.</i>	-		O21	
	-	/A.P./	O22	Caulogenic Callus From Embros of Picea glauca and P. engelmanii," Can. J.

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